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### PATENT SPECIFICATION

Inventor: -FREDERICK WILLIAM STOKES.

743,444



Date of filing Complete Specification: May 10, 1954.

Application Date: July 24, 1953. No. 20659 | 53.

Complete Specification Published: Jan. 18, 1956.

Index at Acceptance:—Class 52(2), W(1D:2A).

#### COMPLETE SPECIFICATION.

Improvements in or relating to Stackable Wooden Chairs or Seats.

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#### **ERRATUM**

#### SPECIFICATION NO. 743,444

Page 2, immediately below line 106, insert #6. A reinforcing member for a stackable wooden chair constructed and arranged as described herein, with reference to the drawings accompanying the Provisional Specification.

THE PATENT OFFICE, 23rd February, 1956

DB 32347/2(10)/3495 150 2/58 R

kind (hereinafter described as the kind referred to) with which the present invention is concerned, have a seat frame and pairs of front and rear legs secured thereto, the front and rear pairs of legs each having free openings therebetween and the inside width apart of the rear legs being greater than the outside width apart of the front legs so that one chair can be stacked on another similar chair by sliding one chair horizontally on to the other, the seat of one resting on top of the seat of the other and the rear faces of the front and rear legs of the other chair.

According to the invention there is provided a stackable wooden chair of the kind referred to, having a frame including a pair of rear legs and a seat, the width of the seat of the chair frame being less than the inside width between the rear legs of the chair frame, a reinforcing member secured to the vertical outer face of each side member of the seat and a second reinforcing member secured to the inner vertical face of the adjacent rear leg of the chair, the two reinforcing members being disposed in spaced parallel relationship with a portion of one reinforcing member disposed between

In one preferred form, the reintorcing member comprises two separate and interconnected strip metal members or plates, one member or plate having portions disposed to be secured one to a rear member of the seat and the other to a side member of a seat, the other strip member or plate being disposed to be secured to the surface of a rear upright chair member, the two strip members or plates being interconnected at their middle portion when secured to the seat and to the upright member.

It is preferred to secure the first and second strips to each other by welding, the two strips being oppositely cranked at their interconnected portions so that the second strip shall lie in a plane parallel to but spaced from the second portion of the first strip or plate.

In order that the invention may be better understood, a preferred embodiment thereof will now be described by way of example with reference to the drawings accompanying the Provisional Specification and in which:

Figure 1 is a perspective view of a reinforcing member for a chair according to the invention;

### RESE PATENT SPECIFICATION

743,444

Inventor: -FREDERICK WILLIAM STOKES.



Date of filing Complete Specification: May 10, 1954.

Application Date: July 24, 1953. No. 20659 |53.

Complete Specification Published: Jan. 18, 1956.

Index at Acceptance :—Class 52(2), W(1D:2A).

#### COMPLETE SPECIFICATION.

## Improvements in or relating to Stackable Wooden Chairs or Seats.

We, Mann Egerton & Co. Limited, a Company incorporated under the laws of Great Britain, of 5 Prince of Wales Road, Norwich, Norfolk, England, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:-

This invention relates to stackable wooden

chairs or seats.

A main object of the invention is to provide an improved stackable wooden chair

of strong construction.

Stackable wooden chairs or seats of the kind (hereinafter described as the kind referred to) with which the present invention is concerned, have a seat frame and pairs of front and rear legs secured thereto, the front and rear pairs of legs each having free openings therebetween and the inside width apart of the rear legs being greater than the outside width apart of the front legs so that one chair can be stacked on another similar chair by sliding one chair horizontally on to the other, the seat of one resting on top of the seat of the other and the rear faces of the front and rear legs of one chair lying adjacent the front faces of 30 the front and rear legs of the other chair.

According to the invention there is provided a stackable wooden chair of the kind referred to, having a frame including a pair of rear legs and a seat, the width of the seat of the chair frame being less than the inside width between the rear legs of the chair frame, a reinforcing member secured to the vertical outer face of each side member of the seat and a second reinforcing 40 member secured to the inner vertical face of the adjacent rear leg of the chair, the two reinforcing members being disposed in spaced parallel relationship with a portion of one reinforcing member disposed between

the other reinforcing member and the part 45 of the chair frame to which the latter is attached so that the inside width between the parts of the reinforcing members secured to the rear legs is greater than the width between the outer faces of the parts of the reinforcing members secured to the side members of the seat.

Preferably, the part of each said reinforcing member secured to the side of the seat is formed with an integral extension bent at 55 an angle to said part and secured to the rear member of the seat.

The invention also comprises a reinforcing member for a stackable wooden chair of the

kind referred to.

In one preferred form, the reinforcing member comprises two separate and interconnected strip metal members or plates, one member or plate having portions disposed to be secured one to a rear member of the seat and the other to a side member of a seat, the other strip member or plate being disposed to be secured to the surface of a rear upright chair member, the two strip members or plates being interconnected at 70 their middle portion when secured to the seat and to the upright member.

It is preferred to secure the first and second strips to each other by welding, the two strips being oppositely cranked at their 75 interconnected portions so that the second strip shall lie in a plane parallel to but spaced from the second portion of the first strip or plate.

In order that the invention may be better 80 understood, a preferred embodiment thereof will now be described by way of example with reference to the drawings accompanying the Provisional Specification and in which:-

Figure 1 is a perspective view of a reinforcing member for a chair according to the invention;

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Figure 2 is a plan view of the reinforcing member shown in Fig. 1;

Figure 3 is a partial view in perspective, f a stackable wooden chair of the kind referred to, provided with reinforcing members in accordance with the invention; and

Figure 4 is a detail view of the chair shown in Figure 3, as seen from the rear.

Referring first of all to Figures 1 and 2. 10 it will be seen that the reinforcing member is formed of two flat metal strips 1 and 2. The strip 1 is bent at right angles to form two substantially equal member 3 and 4, which are each drilled at two places for the reception of screws or the like. The strip 2 extends transversely of the strip 1 and is also drilled at suitable intervals thereon to receive screws or the like. At the point at which the two strips cross each other they are each formed with cranked portions la and 2a respectively and the two strips are conveniently secured by welding at the two cranked portions.

It will be seen that the provision of the 25 cranked portions 1a, 2a, on each strip, ensures that the part 3 lies in a plane which is parallel to but spaced from that of strip 2.

The reinforcing member is fixed with the parts 3 and 4 of strip 1 secured respectively to the side and the rear members 5, 6 of the seat of a chair, whilst the strip 2 is secured to the inner face of the back leg 8 of the chair, as shown in Figs. 3 and 4.

The cranked portions 1a, 2a, on each 35 strip ensure that the width of the seat, including the thickness of the strip 1 on each side member thereof, is less than the width between the back legs measured between the opposing surfaces of the strips 2 on the back legs.

The seat frame of the chair may be provided with a seat 9 of plywood or other material or may be provided in known manner with an inset fixed or removable

A stackable chair provided with reinforcing members as described above is of strong construction and suitable in particular for use in schools for example, where it is desirable to have stackable wooden chairs which will withstand rough usage.

What we claim is:-1. A stackable wooden chair of the kind referred to, having a frame including a pair of rear legs and a seat, the width of the seat of the chair frame being less than the

inside width between the rear legs of the chair frame, a reinforcing member secured to the vertical outer face of each side member of the seat and a second reinforcing member secured to the inner vertical face of the adjacent rear leg of the chair, the two reinforcing members being disposed in spaced parallel relationship with a portion of one reinforcing member disposed between the other reinforcing member and the part of the chair frame to which the latter is attached so that the inside width between the parts of the reinforcing members secured to the back legs is greater than the width between the outer faces of the parts of the reinforcing members secured to the side members of the seat.

2. A stackable wooden chair according to Claim 1 wherein the part of each said reinforcing member secured to the side member of the seat is formed with an integral extension bent at an angle to said part and secured to the rear member of the seat.

3. A reinforcing member for a stackable wooden chair comprising two separate and interconnected strip metal members or plates, one member, or plate, having portions disposed to be secured one to a rear member of the seat and the other to a side member of the seat, the other strip member or plate being disposed to be secured to the surface of a rear upright chair frame member, the two strips members, or plates, being interconnected at their middle portion when secured to the seat and to the upright member.

4. A reinforcing member according to Claim 3 wherein the two metal strip members or plates are secured to each other by welding, the two strip members or plates being oppositely cranked at their interconnected portions so that the second strip or plate shall lie in a plane parallel to but spaced from the second portion of the first 100 strip or plate.

5. A stackable wooden chair of the kind referred to, constructed and arranged as described herein, with reference to the drawings accompanying the Provisional Specifi- 105 cation.

PAGE, WHITE & FARRER. Chartered Patent Agents, 27 Chancery Lane, London, W.C.2, Agents for the Applicants.

#### PROVISIONAL SPECIFICATION.

### Improvements in or relating to Stackable Wooden Chairs or Seats.

We, MANN EGERTON & Co. LIMITED, a Norwich, Norfolk, England, do hereby 110

Company incorporated under the laws of Great Britain, of 5 Prince of Wales Road, following statement:—

This invention relates to stackable wooden chairs or seats.

A main object of this invention is to provide an improved stackable wooden chair f strong constructi n.

Stackable wooden chairs or seats of the kind (hereinafter described as the kind referred to) with which the present invention is concerned, have a seat frame and pairs of 10 front and back legs secured thereto, the front and back pairs of legs each having free openings therebetween and the inside width apart of the back legs being greater than the outside width apart of the front legs so 15 that one chair can be stacked on another similar chair by sliding one chair horizontally on to the other, the seat frame of one resting on top of the seat frame of the other and the rear faces of the front and rear legs of one chair lying adjacent the front faces of the front and rear legs of the other chair.

According to the invention there is provided a stackable wooden chair of the kind referred to, wherein the width of the seat frame is less than the inside width between the back legs, and on the vertical outer face of each side member of the seat frame there is secured one part of a reinforcing member the other part of which is secured to the 30 inner vertical face of the adjacent back leg, the part of each said reinforcing member secured to the said seat frame side member lying in a plane parallel to but spaced from the part of said reinforcing member secured 35 to said leg, so that the inside width between the parts of the reinforcing members secured to the back legs is greater than the width between the outer faces of the parts of the reinforcing members secured to the side 40 members of the seat frame.

Preferably, the part of each said reinforcing member secured to the side member of the seat frame is formed with an integral extension bent at an angle to said part and secured to the rear member of the seat frame.

The invention also comprises a reinforcing member for a stackable wooden chair of the kind referred to.

In one preferred form, the reinforcing member secured to each back leg and the seat frame consists of a first metal strip or plate adapted to be secured to a side member of the seat frame and a second metal strip or plate extending from the first and adapted to be secured to the inner vertical face of a rear leg, said second strip extending transversely of the first strip and lying in a plane parallel to the plane of the first strip but being spaced therefrom by the portion of the reinforcing member constituting the junction between the two strips.

Preferably the said first strip is formed

with an integral extension at right angles thereto adapted to be secured to the rear member of the frame, 3

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It is preferred to secure the first and second strips to each other by spot welding, the two strips being oppositely cranked at their interconnected portions so that the second strip shall lie in a plane parallel to but spaced from the first.

In order that the invention may be better understood, a preferred embodiment thereof will now be described by way of example with reference to the accompanying drawing in which:

Figure 1 is a perspective view of a reinforcing member for a chair according to the invention;

Figure 2 is a plan view of the reinforcing member shown in Fig. 1;

Figure 3 is a partial view in perspective, of a stackable wooden chair of the kind referred to, provided with reinforcing members in accordance with the invention; and

Figure 4 is a detail view of the chair shown in Figure 3, as seen from the rear.

Referring first of all to Figures 1 and 2, it will be seen that the reinforcing member is formed of two flat metal strips 1 and 2. The strip 1 is bent at right angles to form two substantially equal members 3 and 4, which are each drilled at two places for the reception of screws or the like. The strip 2 extends transversely of the strip 1 and is also drilled at suitable intervals thereon to receive screws or the like. At the point at which the two strips cross each other they are each formed with cranked portions 1a and 2a respectively and the two strips are conveniently secured by spot welding at the two cranked portions.

It will be seen that the provision of the cranked portions 1a, 2a, on each strip, ensures that the part 3 lies in a plane which is parallel to but spaced from that of strip 2.

The reinforcing member is fixed with the parts 3 and 4 of strip 1 secured respectively to the side and rear members 5, 6 of the 110 seat frame 7 of a chair, whilst the strip 2 is secured to the inner face of the back leg 8 of the chair, as shown in Figs. 3 and 4.

The cranked portions 1a, 2a, on each strip ensure that the width of the seat frame 115 7, including the thickness of the strip 1 on each side member thereof, is less than the width between the back legs measured between the opposing surfaces of the strips 2 on the back legs.

The seat frame 7 of the chair may be provided with a seat 9 of plywood or other material or may be provided in known manner with an inset fixed or removable seat

A stackable chair provided with reinforc-

743,444

ing members as described above is of strong construction and suitable in particular for use in schools for example, where it is desirable to have stackable wooden chairs which will withstand rough usage.

PAGE, WHITE & FARRER, Chartered Patent Agents, 27 Chancery Lane, London, W.C.2, Agents for the Applicants.

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### 743,444 PROVISIONAL SPECIFICATION

I SHEET

This drawing is a reproduction of the Original on a reduced scale.

